CLAIMS:

1. An electronic circuit for igniting a high-pressure lamp, comprising

resonant circuit (13) for providing an ignition voltage for the high-pressure lamp;

a converter (12) for generating an alternating voltage with which the resonant circuit (13) is excited;

an oscillator (14, 16, 17) for driving the converter (12), the fundamental frequency of the output voltage of the oscillator (14, 16, 17) lying at least in proximity to an integral fraction of the resonance frequency of the resonant circuit (13), and

a feedback (17) from the resonant circuit (13) to the oscillator (14, 16, 17), whereby the fundamental frequency of the output voltage of the oscillator (14, 16, 17) is so tuned that the resulting frequency of the output voltage of the oscillator (14, 16, 17) corresponds substantially exactly to the integral fraction of the resonance frequency in proximity to which the fundamental frequency of the output voltage of the oscillator (14, 16, 17) lies.

2. An electronic circuit as claimed in claim 1, characterized in that the feedback coupling comprises a capacitive antenna (17) for detecting the output voltage of the resonant circuit (13).

3. An electronic circuit as claimed in claim 2, characterized in that the capacitive antenna (17) is formed by a conductor track configuration on a printed circuit.

4. An electronic circuit as claimed in any one of the preceding claims, characterized in that a delay unit (15) is contained in the signal path from the oscillator (14, 16, 17) to the converter (12).

5. An electronic circuit as claimed in any one of the preceding claims, characterized in that the oscillator (14, 16, 17) comprises an analog comparator (14, 21).

6. An electronic circuit as claimed in claim 5, characterized in that the oscillator (14, 16, 17) has a hysteresis which determines the integral fraction of the resonance frequency in proximity to which the fundamental frequency of the output voltage of the oscillator (14, 16, 17) lies.

7. An electronic circuit as claimed in any one of the claims 1 to 4, characterized in that the oscillator comprises a digital circuit, in particular a digital PLL (phase locked loop) (18).

8. An electronic circuit as claimed in claim 7, characterized in that the digital circuit (18) utilizes both the signal of the resonant circuit (13) and the output signal of the converter (12) for frequency control.

9. An electronic circuit as claimed in any one of the preceding claims, characterized in that the resonant circuit (13) comprises a resonance coil whose the magnetic material reaches saturation at a predefined voltage, in particular the ignition voltage determined for the high-pressure lamp.

10. A lighting system comprising an electronic circuit as claimed in any one of the preceding claims and comprising a high-pressure lamp connected to the resonant circuit (13) of the electronic circuit.

11. A method of igniting a high-pressure lamp by means of a resonant circuit (13) supplied with an alternating voltage by an converter (12), the method comprising the following steps:

a) driving of the converter (12) by a voltage which is output by an oscillator (14, 16, 17) such that the converter (12) outputs an alternating voltage, the fundamental frequency of the output voltage of the oscillator (14, 16, 17) lying at least in proximity to a fraction of the resonance frequency of the resonant circuit (13);

b) supplying of the alternating voltage output by the converter (12) to the resonant circuit (13) so as to excite an oscillation in the resonant circuit (13);

c) feeding the oscillation caused in the resonant circuit (13) back to the oscillator (14, 16, 17), such that the frequency of the output voltage of the oscillator (14, 16, 17) is adjusted to a value which corresponds substantially exactly to the fraction of the

resonance frequency of the resonant circuit in proximity to which the fundamental frequency of the output voltage of the oscillator (14, 16, 17) lies, and

d) repetition of steps a) to c) until a voltage required for ignition of the high-pressure lamp is attained at the resonant circuit (13).

12. A method as claimed in claim 11, characterized in that in step a) the signal output by the oscillator (14, 16, 17) is transmitted with a delay for driving the converter (12).